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NORTHERN PLANT NOVELTIES FOR 1941

Department of Horticulture, South Dakota State College  
and Agricultural Experiment Station  
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Total four pages.

A commercial nursery is not conducted by this department, but we do propagate and distribute new varieties originated in this department or imported from similar climates of the World. Improvement in size and quality of the Horticultural material has been observed each year since 1895 in the many acres of seedling fruits. Hybridization and selection are the main methods of improvement. The work has been honored by extensive propagation and planting of many of the new varieties and by four medals awarded to Dr. N. E. Hansen. The George Robert White gold medal of honor for "eminent service in horticulture" by the Massachusetts Horticultural Society, 1917; the Marshall P. Wilder silver medal by the American Pomological Society for new fruits, 1929; gold medal for public service by Cosmopolitan club, Sioux Falls, 1933; A. P. Stevenson gold medal for new fruits by the Manitoba Horticultural Society, 1935, were given for outstanding service to the field of Horticulture.

Many new seedling fruits, roses, other ornamentals and vegetables are coming on, which will be released as soon as they are up to standard. Some of the material in this list is offered primarily for distribution to plant-breeders to help in the work of improving hardy fruits and roses elsewhere.

Terms: Terms are cash with order. For South Dakota orders add three per cent to the above prices for State Retail Sales Tax. The money received from the sale of plants makes it possible to do the work on a larger scale than would otherwise be possible. It is important to order promptly, as soon as this list is received, as the supply of plants is limited.

Note: There are no propagation restrictions on any of these new varieties.

Hidatsa: A Hardy Double-Flowered Hawthorn

Offered for the first time.

In England, Hawthorn hedges are one of the greatest charms of the rural landscape. This species, Crataegus oxyacantha, is native of Europe and north Africa and is not hardy enough for the prairie Northwest. There are a number of varieties in England of which the best is Paul's Double Scarlet Hawthorn. Several years ago, Dr. N. E. Hansen crossed this variety with the native wild Hawthorn of Pilot Mound, Manitoba. A number of seedlings were obtained that are very ornamental. Hidatsa, the first to be offered, has abundant double flowers that are light shell pink in color. The glossy, attractive foliage with each sprig provides a "beautiful, ready-made corsage." (Hidatsa: a Sioux Indian tribe).

There are at least seven of these beautiful hardy double Hawthorns. Their relative merits must be determined by further trial elsewhere in South Dakota and other states. Hidatsa Hawthorns will be widely popular as small ornamental lawn trees. W. J. Bean, a noted English author, said none make lovelier lawn trees than the Hawthorn.

Hawthorn seedlings or pear may be used as understocks; Hidatsa Hawthorn, scions only, per foot, \$1.

Siberian Apricot

The Siberian Apricot, a distinctly different variety from the Manchu Apricots released from this station in 1937, is an interesting ornamental shrub or small tree, around ten feet high and ten feet across; flowers appear early, white to light pink; leaves round ovate, long-pointed; fruit inedible, the flesh splitting into two leathery parts. Linnaeus named it Prunus Sibirica; later authors classify it as a subspecies of the common apricot, Prunus Armeniaca, Linn. var. Sibirica, Koch. The greatest value of this species may be as a nursery understock for the Manchu apricots. In budding in nursery they unite in an apparently perfect union. It should cause earlier bearing as it is more dwarf in growth than the tall-growing Manchu apricots. In addition it has much ornamental value as the small trees are loaded with blossoms.



The Siberian apricot was collected by Dr. N. E. Hansen in two places in East Asia. The Shilka Siberian apricot is from Shilka, East Siberia, an area with a minimum low winter temperature of  $-67^{\circ}\text{F}$ . The Mendo Siberian apricot is from Mendochino, north Manchuria, in the Great Khingan Mountains.

Shilka and Mendo are offered for the first time; one-year seedlings, each fifty cents.

#### Select Hansen Bush Cherries

Out of 37 acres of the Hansen Bushcherry, Prunus Besseyi, of the fourteenth generation under cultivation, the best seedlings were numbered and then budded on native plum in 1938 and 1939. Most of these selections will be used for a new budded plantation. Seventy-seven of these new selections together with three older selections are now available as one-year buds for preliminary trial and as a basis for further experiments. These numbered, budded bushcherries are highly productive.

In addition there are ten named Bushcherries. The nine varieties listed in South Dakota Agr. Exp. Sta. Bulletin 309 and the Sioux are available in small numbers budded on native plum. Budded selections and named varieties, 50¢ each.

#### New Apples and Crabapples

All orchardists who suffered from the unusual blizzard of Armistice Day, 1940, realize the importance of hardy apple varieties on Siberian crab stocks. The following one-year trees are on Siberian crab stocks, each \$1.00.

Nebo apple - Introduced 1940. Pedigree: Alexander apple x Mercer wild crab pollen. Fruit  $3\frac{1}{4}$  inches across, round, regular, truncated, slightly tapering; basin narrow, shallow, smooth; cavity obtuse. Color red, striped, grayed, mixed and splashed. Flesh pleasant subacid, juicy, cooks up easily into excellent sauce. The tree is productive. The largest so far of all these apple seedlings. (Nebo: the Russian for "sky").

The Alexander was introduced into England from Russia in 1817 and later from there to America, the year unknown. It is the Emperor Alexander, one of the largest of all apples, and classified as a member of the Aport group of Russian apples. The huge Wolf River from Wisconsin is no doubt a seedling of the Alexander.

Semla apple - Introduced 1940. The next largest apple in 1939. Pedigree: an open-pollinated seedling of Wolf River apple. Fruit very large, 3 inches in diameter, oblate with red stripes with mixed and solid red over yellow ground, with grayish net-veining. Basin smooth, abrupt, narrow; cavity acute, narrow, russeted. Flesh pleasant subacid. When propagated and under orchard conditions probably the fruit will be larger than three inches. Excellent quality sauce. (Semla: the Russian for "family").

Lina apple - Introduced 1933. A seedling of Malinda. If a late yellow apple is desired, the Lina, a seedling of Malinda, should be tested. Fruit  $2\frac{1}{2}$  inches across, somewhat conical, truncated, good juicy subacid. It is shaped much like Malinda, but without corrugations in basin or blossom end.

Wakpala apple - Introduced 1928. A good sized apple,  $\frac{3}{4}$  tame apple,  $\frac{1}{4}$  wild crab. Pedigree: Mercer crab x Tolman Sweet apple pollen. In 1939 the fruit was 2.5 inches across; color yellow lightly striped with red; flesh white subacid with spicy sweet fragrance. Cooks up quickly into excellent light yellow sauce; the slices retain their shape in cooking. Season winter.

#### Older Introductions in Apples

A few Redflesh crabs, Dolgo crab, Anoka apple, 1-year trees on Siberian crab root, each 50¢.

Keo crabapple - Introduced 1940. This Amur crabapple seedling fruited heavily in 1939. The tree was standing far from other apple trees, so it is very likely self-fertile. The fruit is 1 and  $\frac{5}{8}$  inches across, oblate, regular; with a flat basin; flesh white, sauce red-tinted, of excellent quality; the slices retain their shape in cooking. The color is really remarkable: an intense polished bright crimson red all over, shaded deeper on the sun side.

The Siberian apple was collected by Dr. N. S. Hansen in the place in East Asia. The Siberian apple is from Shikha, East Siberia, an area with a minimum for winter temperature of -45°F. The Siberian apple is from Manchuria, north Manchuria, in the Great Khingan Mountains.

Shikha and Monda are offered for the first time; one-year seedling, 1940. Fifty cents.

Select Siberian Apples

Out of 37 acres of the Hansen selection, *Finna Bessie*, of the first generation under cultivation, the best seedling was numbered and then added on native plum in 1938 and 1939. Most of these seedlings will be used for a new budding plantation. Twenty-seven of these seedlings together with three other selections are now available for one-year trees for preliminary trial and as a basis for further experiments. These numbered, budding characteristics are highly productive.

In addition there are ten named Manchurian varieties. The most variable listed in South Dakota are: *Patricia*, 100 acres, 100 trees; *Patricia*, 100 acres, 100 trees; numbers budding on native plum. Some seedlings and named varieties, 100 each.

New Apples and Crispapples

All orchardists who suffered from the apple-blight of Asiatic Day, 1940, realize the importance of hardy apple varieties on Siberian trees. The following one-year trees are on Siberian trees, each 1.00.

**Maple apple** - Introduced 1940. Pedigree: *Alexander apple* x *Mercer*. Fruit 3 1/2 inches across, round, regular, truncate, slightly flattened, basin narrow, shallow, smooth; cavity obtuse. Color red, striped, gray, mixed and splashed. Flesh pleasant, subacid, juicy, cooks up easily into excellent sauce. The tree is productive. The largest so far of all these apple seedlings. (Not the Russian for "sky").

The *Alexander* was introduced into England from Russia in 1834 and later from there to America, the year unknown. It is the largest *Alexander*, one of the largest of all apples, and classified as a member of the short group of Russian apples. The name *Wolf* from Wisconsin is no doubt a seedling of the *Alexander*.

**Sania apple** - Introduced 1940. The next largest apple in 1939. Pedigree: an open-pollinated seedling of *Wolf* River apple. Fruit very large, 3 inches in diameter, oblate with red stripes with mixed and solid red over yellow ground, with grayish net-veining. Basin smooth, large, narrow; cavity acute, narrow, truncate. Flesh pleasant, subacid; when propagated and under orchard conditions probably the fruit will be larger than three inches. Excellent quality sauce. (Not the Russian for "sanity").

**Line apple** - Introduced 1933. A seedling of *Malinda*. It is tall yellow apple is desired, the line, a seedling of *Malinda*, should be tested. Fruit 2 1/2 inches across, somewhat conical, truncate, good juicy subacid. It is shaped much like *Malinda*, but without corrugations in basin or blossom end.

**Wekala apple** - Introduced 1938. A good sized apple, 3 1/2 to 4 inches, with crab. Pedigree: *Mercer* crab x *Tolman Sweet* apple pollen. In 1939 the fruit was 2 1/2 inches across; color yellow lightly striped with red; flesh white subacid with spicy sweet fragrance. Cooks up quickly into excellent light yellow sauce; the slices retain their shape in cooking. Season winter.

Older Introductions in Apples

A few Redfish crabs, Dolge crab, Anoka apple, 1-year trees on Siberian crab root, each 50¢.

**Red crispapple** - Introduced 1940. This new crispapple seedling fruited heavily in 1939. The tree was stemming far from other apple trees, so it is very likely self-fertile. The fruit is 1 and 3/8 inches across, oblate, regular; with a flat basin; flesh white, sauce red-tinted, of excellent quality; the slices retain their shape in cooking. The color is really remarkable: an intense polished bright crimson red all over, shaded deeper on the sun side.

The fruit would sell at sight in any market. The fresh fruit is a crisp, pleasant, juicy acid, just what is wanted in a crab; it also stands up well, which is a characteristic derived from the Amur crab which does not soften easily.

There is a large number of crabapples on the market, but since the market demand is so strong towards bright red color, this new seedling will attract attention. As with Dolgo, Amur, Beauty, Alexis, and the others of similar descent, it is a very heavy bearer.

S. D. Eda crabapple - Introduced 1940. Pedigree: Jonathan x Tony crab pollen. This makes it  $\frac{1}{2}$  Jonathan;  $\frac{1}{4}$  baccata;  $\frac{1}{4}$  MacMahon White apple. A sister to S. D. Ben crabapple introduced in 1938. Fruit  $2\frac{1}{4}$  inches across x  $1\frac{3}{4}$  inches deep, oblate, regular, cylindrical, truncated. Color a deep solid polished and marbled red, thinly striped over yellow. Flesh a rich, pleasant subacid much like Jonathan. The fruit cooks like a Jonathan and is of excellent quality, the slices retaining their shape. The fruit is unusually heavy for its size. When given orchard conditions probably the fruit will be larger. It and S. D. Bona crabapple are choice dessert apples for late fall and early winter.

S. D. Bona crabapple - Introduced 1938. Pedigree: Jonathan x Sylvia crab pollen. A sister to the S. D. Bison. Fruit  $1\frac{1}{2}$  inches deep, color an attractive deep rich solid polished red, nearly black red; flesh yellow, rich mild pleasant subacid, cooks easily with red sauce, of very good quality. Late fall or early winter. Tree a heavy bearer.

S. D. Bison crabapple - Introduced 1933. The name was changed in 1939 to South Dakota Bison to distinguish it from a Canadian variety named Bison crabapple. Fruit  $1\frac{1}{2}$  inches across, red, and of excellent quality. Pedigree: Jonathan apple x Sylvia crab, making it one-half Jonathan apple, one-fourth Siberian crab, Pyrus baccata, and one-fourth Yellow Transparent apple. The tree is a very heavy bearer. Under orchard conditions this may turn out to be almost an apple in size.

S. D. Jonsib crabapple - Introduced 1938. Pedigree: Jonathan apple x Irkutsk, Siberia, crab (Pyrus baccata) pollen. The highly colored fruit is  $1\frac{3}{4}$  inches across; a mixed striped red over yellow ground. The mottled mixed red gives the shady side a rich orange-red effect. The sauce is light red and of excellent quality. The tree bore a heavy crop in 1938 and 1939. The highly attractive color, good size and excellent quality of the fruit gives it a claim upon recognition as a red crabapple for market.

#### Hardy Pears for the Northern Great Plains

All pears are one-year buds on East Siberian Pear (Sapovsky) stock, except Okolo of which only scions are offered. Price per tree, \$1. Only nine complete sets available.

Finland pear - Introduced 1933. An open-pollinated seedling of the Yellow Early Finland pear planted next to row of Russian sandpear. A yellow pear, two inches in diameter and of excellent quality. Stem extra long.

Finsib pear - Introduced 1939. Pedigree: Finland Early Yellow x Sapovsky pollen. The Finland Yellow Early pear was brought from Russia. The Sapovsky is Pyrus Ussuriensis of East Siberia. The Finsib pear is 2 x 2 inches, globular, acute pyriform, yellow with minute russet dots. Stem long, up to  $2\frac{1}{4}$  inches. Flesh juicy, melting; quality excellent.

Krylov pear - Introduced 1933. A fine large early pear of good quality. Pedigree: Sapovsky pear of eastern Siberia x Lincoln pear pollen.

Sadko pear - Introduced 1933. Pedigree: Russian sandpear x Vermont pear pollen. A fine large red pear of good quality. Tree strong with good forks.

Selenga pear - Introduced 1939. Pedigree: Sapovsky (East Siberian Pyrus Ussuriensis) x White Doyenne pear pollen. Fruit oblong pyriform,  $1\frac{3}{4}$  inches across,  $2\frac{1}{2}$  inches deep, yellow with minute russet dots, quality excellent, season October. Tree productive.

Tanya pear - Introduced 1939. Ideal x East Siberian (Pyrus Ussuriensis). A red late-keeping pear of medium size and quality.

Sladky pear - Introduced 1933. A large pear,  $2\frac{1}{2}$  inches in diameter; yellow, sweet, good flavor. (Sladky: the Russian for "sweet"). Pedigree: Russian sandpear x Lincoln pear. Keeps well; season autumn.

The fruit would sell at a high price in the market. It is a very juicy, pleasant, juicy apple, that will be found in every orchard. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

There is a large number of orchards in the State, and the demand is so strong for a bright red apple, that it is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

S. C. Red Crabapple - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

S. D. Blue Crabapple - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

S. D. Blue Crabapple - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

S. D. Jonathan Crabapple - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

Heavy Pear for the Western States

All pears are one-year buds on a hardy Siberian pear (Siberian pear) stock, except those of which only scions are offered. Siberian pear is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

Finland pear - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

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Kiyov pear - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

Sadko pear - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

Selega pear - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

Lava pear - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.

Sladky pear - Introduced 1933. Pedigree: Russian sand pear x Vermont pear. This variety is a very attractive variety, which is a very attractive variety. It is a very attractive variety, which is a very attractive variety. It is a very attractive variety.



Yermak pear - Introduced 1939. Seckel x East Siberian pear (Pyrus Ussuriensis). In this pear hardiness and resistance to blight is combined with good quality. In the fruit, the Seckel, the highest in quality of all pears grown in America, contributes superb quality, and in tree the Siberian pear gives extreme hardiness. Resistance to fire-blight comes from both parents. The fruit of the original tree, much crowded in the seedling rows, is about the same size as Seckel, the seed parent. Season, early October. (Yermak, the Cossack conqueror of Siberia about 400 years ago).

Okolo pear - Introduced 1940. Pyrus ovoides (Simonii) seedling. Fruit  $2\frac{1}{4}$  x  $2\frac{1}{4}$  inches, obtuse pyriform. Clear light yellow, with multitude of minute dark russet dots. Stem long, stout. Flesh white, firm, juicy; flavor delicious. Tree a heavy bearer. (Okolo: the Russian for "round") Scions only, \$1.00 per foot.

#### Older Introductions in Plums

A few trees of each of the following plum and plum hybrids are offered in response to an increasing demand for some of the best of the earlier introductions. They are described in S. Dak. Agr. Exp. Sta. Bulletins 224, 309, 339. One-year buds on native plum, each 50¢.

Assiniboin	Kahinta	Opata	Tecumseh
Champa	Kamdesa	Oziya	Teton
Cikana	Kiowa	Pembina	Toka
Enopa	Kota	Sanoba	Tokata
Etopa	* Mana	Sansoto	Tom Thumb
Ezaptan	* Oacoma	Sapa	Wachampa
Hanska	† Ojibwa	Skuya	Wastesa
Huya	Oka	Stanopa	Winnipeg
Kaga	Okiya	Tawena	Wohanka
Yuteca		Zekanta	

#### New Hardy Roses

Of the Pax thornless Roses described in the 1940 spring list, eight plants of Pax Iola and twelve plants of Pax Apollo are available. Of the Lillian Gibson rose, eleven plants are available. All own-rooted plants, price each \$1.

Pax Iola rose - Introduced 1938. Pedigree: Anci Böhm (a climbing rose from Europe) x pollen of Rosa blanda, wild rose from Bemidji, north Minnesota. Flowers a semi-double clear shell pink. A strong grower, evidently of the pillar type. The shoots close to the ground also full of bloom. Hundreds of flowers  $2\frac{1}{4}$  inches across in large clusters. Petals about 25. The older flowers are nearly white; these two colors make the bush a thing of beauty. The stems of strong growth are all smooth; the rachis or midrib of the leaf is bristly, but a pleasing thornless bouquet can be cut from the side shoots.

Pax Apollo rose - Introduced 1938. Pedigree: Rosa sempervirens pallida x pollen of Rosa blanda wild rose from southern Manitoba. A wonderful producer of deep pink flowers in large clusters in June. Petals about 14. Tall, upright, 7-foot dark red stems. The wood is smooth; on strong shoots the midrib of the leaf is bristly.

Lillian Gibson rose - Introduced 1938. Pedigree: Wild rose (Rosa blanda) from Wilton, northern Minnesota x Red Star (a red Hybrid Tea) pollen. This rose turns out to be very productive; a strong sprout planted 1938 bore 31 flowers in 1939 and about 237 in 1940. This rose was the sensation at the Sioux Falls Show, June, 1937. The flowers are large, double, over 40 petals, a beautiful lively rose pink, about three inches across with delightful rich fragrance. A very abundant bloomer in late June. Plant of strong upright sturdy growth. The plant is sparsely thorny on young shoots, with scattered thorns on the old shoots.

Yankee pear - Introduced 1938. Reddish x white. In this year introduced in the United States. In the first, the seedling, the tree grows in America, countries and quality, in the second, extreme hardiness. Resistance to diseases and insects. Fruit of the original tree, much grown in the seedling form, is about the size as before, the seed parent, season, early October. (Yankee, the common name of Siberia about 400 years ago).

Okolo pear - Introduced 1940. Pyrus avooides (Siberia) seedling. Fruit 2 1/2 x 2 1/2 inches, oblate pyriform. Color light yellow. Skin with little of dark russet spots. Stem long, stout. Fruit white, firm, juicy. It is a dark tree with heavy leaves. (Okolo: the Russian for "round"). Introduced in 1940. One-year seed on native plants and 204.

Other introductions in 1938

A few trees of root of the following plants and their response to an increasing amount of water and fertilizer. These were described in the 1938 report, including the following: One-year seed on native plants and 204.

Asanipoin	Kanting	Opel	Indochina
Champs	Kambang	Osiva	Indochina
Chiana	Kiowa	Pachin	Indochina
Enopa	Kota	Pachin	Indochina
Etopa	Mans	Pachin	Indochina
Hauptan	Ogonan	Pachin	Indochina
Hansan	Ojiba	Pachin	Indochina
Haya	Oka	Pachin	Indochina
Kaya	Oiya	Pachin	Indochina

New Hardy Roses

Of the Pax roses described in the 1940 report, eight plants of Pax Lola and twelve plants of Pax Apollo are available. The Pax Gibson rose, eleven plants are available. All are rooted, single, pink flowers.

Pax Lola rose - Introduced 1938. Pedigree: York Rose (offspring from Europe) x pollen of Pax Gladys, with root from Hedgitt, northwestern. Flowers a semi-double clear shell pink. A strong grower, very bushy of pillar type. The shoots close to the ground and full of thorns. Introduced flowers 2 1/2 inches across in large clusters. Petals about 25. The flowers are nearly white; these the color used in the first year of growth. The stems of strong growth are all erect; the thorns or spines of the leaf are bristly, but a pleasing thornless form can be obtained from the side shoots.

Pax Apollo rose - Introduced 1938. Pedigree: Rose gallica x pollen of Rose blanda wild rose from southern Manitoba. A wonderful producer of deep pink flowers in large clusters in June. Petals about 14. Tall, upright, 7-foot dark red stems. The wood is erect; on strong shoots the thorns of the leaf is bristly.

Lillian Gibson rose - Introduced 1938. Pedigree: Wild rose (see above) from Wilton, northern Minnesota x Red Star (a red Hybrid Tea) pollen. This rose turns out to be very productive; a strong grower planted 1938 bore 31 flowers in 1939 and about 237 in 1940. This rose was the sensation at the Glen Falls Show, June, 1937. The flowers are large, double, over 40 petals, a beautiful lively rose pink, about three inches across with delightful fragrance. A very abundant bloomer in late June. Plant of strong upright sturdy growth. The plant is sparsely thorny on young shoots, with scattered thorns on the old shoots.